Amendments to the Claims

Claims 1-18 (Cancelled).

19. (New) Device for the capacitive position finding of a target object
having a plurality of capacitive probes distributed over a detection area in which a position of the target object is to be determined,
wherein
a dependence of the probe voltages on the spacing of the target object from the given capacitive probe is evaluatable for position determination,
the probes are in each case connected across coupling capacitances to a voltage supply and can be supplied with a supply voltage, the capacitances of probes to the environment together with the coupling capacitances in each case forming a capacitive voltage divider with the probe voltages as mean voltages and
an evaluating device connected to the probes is provided and which enables the probe voltages to be processed to an output signal, which is a measure for the position of the target object to be found.

20. (New) Device according to claim 19,
wherein
the coupling capacitances are at least partly constructed as discreet capacitors.

21. (New) Device according to claim 20,
wherein
at least one of the probes is constructed as a reference probe.

22. (New) Device according to claim 19,
wherein
the probes are distributed over a three-dimensional detection area.

23. (New) Device according to claim 19,

wherein

the evaluating device for each probe has a rectifier.

24. (New) Device according to claim 19,

wherein

the evaluating device has a microprocessor.

25. (New) Device according to claim 24,

wherein

the evaluating unit has a multiplexer by means of which the probe signals of at least two probes can be supplied to the central processing unit.

26. (New) Device according to claim 24,

wherein

the evaluating device has a signal processor for pre-processing the analogue probe signals.

27. (New) Device according to claim 19,

wherein

the plurality of capacitive probes are distributed in a first area of a support over the detection area in which the position of the target object is to be found,

for forming the coupling capacitances there is at least one coupling electrode in a second area of the support by means of which coupling electrode a supply voltage can be coupled onto the probes and

the support for forming a coupling layer is at least partly made from a dielectric material.

28. (New) Device according to claim 27,

wherein

the plurality of capacitive probes are distributed on one side of the support and the at least one coupling electrode is arranged on a facing side of the support.

29. (New) Device according to claim 27,

wherein

the support is constructed as a printed circuit board.

30. (New) Device according to claim 27,

wherein

the support is constructed as a flexible printed circuit board.

31. (New) Device according to claim 27,

wherein

at least parts of evaluating electronics are placed on the support.

32. (New) Device according to claim 27,

wherein

for forming a unitary potential surface the coupling electrode is constructed as a continuous metallic layer.

33. (New) Device according to claim 27,

wherein

further metal layers are provided for shielding.

34. (New) Device according to claim 27,

wherein

further metal layers are provided for at least one of receiving circuit components on said support and receiving circuit components in said support

35. (New) Method for capacitive position finding of a target object,

in which a plurality of capacitive probes is arranged over a detection area in which a position of the target object is to be determined,

wherein

the probe voltages are dependent on the spacing of the target object from the given probe and are evaluated for determining the position of the target object,

the probes are in each case supplied with a supply voltage across coupling capacitances, capacitive voltage dividers with the probe voltages as mean voltages being formed through the coupling capacitances and by the capacitances of probes to the environment varying as a result of a position change of the target object to be detected and

the probe voltages are processed with an evaluating device to an output signal, which is a measure of the position of the target object to be found.

36. (New) Method according to claim 35,

wherein

at least one of a discreet object, a liquid and a bulk material is detected.

37. (New) Method according to claim 35,

wherein

all the coupling capacitances are supplied with the same supply voltage with a given frequency.

38. (New) Method according to claim 37,

wherein

the quotients of several probe voltages are formed for evaluating the probe signals.

39. (New) Method according to claim 35,

wherein

the signal voltage of at least one reference probe is taken into account during evaluation.

40. (New) Device for the capacitive position finding of a target object

having a plurality of capacitive probes distributed over a detection area in which a position of the target object is to be determined,

wherein

a dependence of the probe voltages on the spacing of the target object from the given capacitive probe is evaluatable for position determination,

the probes are in each case connected across coupling capacitances to a voltage supply and can be supplied with a supply voltage, the capacitances of probes to the environment together with the coupling capacitances in each case forming a capacitive voltage divider with the probe voltages as mean voltages,

an evaluating device connected to the probes is provided and which enables the probe voltages to be processed to an output signal, which is a measure for the position of the target object to be found,

the plurality of capacitive probes are distributed on one side of a printed circuit board over the detection area in which the position of the target object is to be found,

for forming the coupling capacitances there is at least one coupling electrode on a facing side of the printed circuit board by means of which coupling electrode a supply voltage can be coupled onto the probes and

the printed circuit board for forming a coupling layer is at least partly made from a dielectric material.